

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claims 1-13 (canceled)

Claim 14 (currently amended): A method for fabricating a semiconductor package, comprising the ~~step~~ steps of:

preparing a substrate having a front surface and a back surface opposed to the front surface, wherein a plurality of I/O (input/output) vias, power vias and ground vias are formed to extend from the front surface to the back surface of the substrate;

mounting at least a chip having an active surface and an inactive surface opposed to the active surface, wherein the active surface is formed with a plurality of I/O pads, power pads and ground pads, and further formed with a power plane and a ground plane in a manner that, the power plane is electrically connected to the power pads, and the ground plane is electrically connected to the ground pads[[:]], and wherein the inactive surface of the chip is mounted on the front surface of the substrate;

forming a plurality of bonding wires for electrically connecting the I/O pads on the chip to the I/O vias of the substrate;

mounting a power-connecting heat spreader over the front surface of the substrate; the power-connecting heat spreader having a support portion, an overhead portion supported on the support portion, and a downward-extending portion protruding downwardly from the overhead portion, wherein the support portion is electrically bonded to the power vias of the substrate, and the downward-extending portion is electrically bonded to the power plane on the chip, allowing the overhead portion to be elevated in position above the chip by the support portion and the downward-extending portion in a manner that, the power-connecting heat spreader entirely covers the chip;

mounting a ground-connecting heat spreader over the front surface of the substrate; the ground-connecting heat spreader having a support portion, an overhead portion supported on the support portion, and a downward-extending portion protruding downwardly from the overhead portion, wherein the support portion is electrically bonded to the ground vias of the substrate, and the downward-extending portion is electrically bonded to the ground plane on the chip, allowing the overhead portion to be elevated by the support portion and the downward-extending portion in position above the overhead portion of the power-connecting heat spreader in a manner that, the ground-connecting heat spreader entirely covers the chip;

forming an encapsulation body for encapsulating the front surface of the substrate, the chip, the power-connecting heat spreader and the ground-connecting heat spreader; and

implanting a plurality of solder balls on the back surface of the substrate, and electrically bonding the solder balls to the vias.

Claim 15 (original): The method of claim 14, wherein the power plane and the ground plane are electrically connected respectively to the power pads and the ground pads by means of wire-bonding technology.

Claim 16 (original): The method of claim 14, wherein the power plane and the ground plane are electrically connected respectively to the power pads and the ground pads by means of TAB (tape automated bonding) technology.

Claim 17 (original): The method of claim 14, wherein the power-connecting heat spreader and the ground-connecting heat spreader are each an integrally-formed piece of electrically-and-thermally conductive material.

Claim 18 (original): The method of claim 14, wherein the overhead portion of the power-connecting heat spreader is formed with an opening, for allowing the downward-extending portion of the ground-connecting heat spreader to penetrate through the opening and to be electrically bonded to the ground plane on the chip.

Claim 19 (original): The method of claim 14, wherein the support portion of the power-connecting heat spreader and the support portion of the ground-connecting heat spreader are each formed with at least an opening, for allowing a molding compound used for forming the encapsulation body to pass through the opening.

Claim 20 (original): The method of claim 14, wherein the overhead portion of the ground-connecting heat spreader is exposed to outside of the encapsulation body.